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ABSTRACT

This paper attempts to illustrate with concrete data that riddles serve as a didactic device to sharpen the wits of young children. The riddle is described as a verbal routine which adapts the interrogative system of a speech community to purposes of play. Riddles concerning motion or locomotion of animals, machines and toys were collected in a single riddling session, from three Chicano children aged 5-7. The output of these neophyte riddles is discussed in the context of the acquisition and refinement of cognitive categories, and a folk taxonomy focused on the semantic domain of locomotion is suggested. Riddling is viewed as a didactic mechanism conducive to experimentation with received notions of order, and elaboration of novel cognitive orders. In riddling, at various stages, children learn to formulate culturally acceptable classifications; to articulate classifications at variance with cultural conventions; and finally to assess language and classification as arbitrary instruments reflecting only partially the continuous texture of experience. (Author/MS)

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Riddling and Enculturation: A Glance at the Cerebral Child

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The present paper, dealing with a form of children's riddling which lacks cultural saliency, represents another assault on what Brian Sutton-Smith has felicitously termed the triviality barrier (Sutton-Smith 1970). Childish behavior is so thoroughly stigmatized in our canons of adult comportment that much of the spectrum of characteristically children's activity has been systematically neglected or at best observed with disdain or apology in our social sciences. We owe to Johan Huizinga the definitive affirmation of the importance of play, adult's and child's, in the shaping of culture:

> Play is more than a mere physiological phenomenon or psychological reflex...It is a <u>significant</u> function--that is to say, there is some sense in it. In play there is something "at play" which transcends the immediate needs of life and imparts meaning to the action (1950:1).

Subsequent research, taking as fundamental the notion advanced in the above statement, has demonstrated beyond any measure of doubt the non-trivial nature of children's play. It would be possible, on the basis of a growing body of research too extensive to review here, to characterize the play of children as a <u>crucial</u> function, central in the acquisition, maintenance, and modification of culture (see Piaget 1965; Roberts, Arth, and Bush 1959; Roberts and Sutton-Smith 1962; Sutton-Smith 1967; Sanchez and Kirshenblatt-Gimblett 1971; McDowell 1974). Moreover, as Huizinga's initial effort intended, the study of the play motive in culture has blossomed into a powerful analytical tool, with major applications in several domains of human activity (Huizinga 1950; Abrahams 1973).

The riddle, with which we will be concerned in what follows, is among the most venerable of the genres of folklore, a source of instructive play in many societies, the Venda for example (Blacking 1961), and an enduring puzzle and challenge to students of expressive culture. Simply defined,

the riddle is a verbal routine which adapts the interrogative system of a speech community to purposes of play. The question, a fundamental speech resource, normally employed in the exchange of inf rmation, serves in the riddling context as a means of examining wrinkles or ambiguities latent within the verbal code (see Abrahams 1972). Riddles, like other ludic forms, reverse the pattern of expectations normally associated with the activity involved. The serious question enables the questioner to solicit information unknown to him (except in the instance of rhetorical questions, which arguably constitute an elaboration of basic questioning procedures). In riddling, on the other hand, the questioner solicits information already known, indeed the riddler alone determines correct and incorrect responses. Some contemporary riddling makes this reversal all the more conspicuous by citing an answer for which the riddlees must then provide an appropriate question.

Riddling competence necessarily builds on prior interrogative competence. For this reason we rarely find children riddling before the age of 5 or so. Even so, the 5 or 6 year old riddler makes of riddling something rather different than the practiced routines of his adolescent counterparts. As Sutton-Smith has remarked, the former is prone to view the riddle as "a puzzling question with an arbitrary answer" (Sutton-Smith 1972). In another variation, the younger riddler is likely to design riddles which are transparent questions, lacking the characteristic block element responsible for the semantic confusion normally generated in the riddle. The block element, revolving on metaphor or another form of artful obfuscation, remains somewhat beyond the grasp of the riddling neophyte (see Georges and Dundes 1963). The initiate riddler captures first the aural texture and rhythm of the riddle, and only later adjusts to the more demanding strictures of riddle content.

Riddling at each stage along this journey to artful ambiguation apparently serves functions connected to the acquisition of cognitive and interactional skills (McDowell 1974). In making this assertion we cross the triviality barrier and attribute vital functions to a form of child's play often annoying to mothers, and until recently entirely invisible to scholars. In the remainder of this paper I will discuss and interpret the output of riddling neophytes during the course of a single riddling session. This riddling will be viewed in the context of the acquisition and refinement of cognitive categories. The riddles were collected by myself in Austin, Texas, from a trio of Chicano children, ages 5-7. This riddling session structured itself around one specific theme, addressed in several of the individual riddles, concerning the motion or locomotion of machines, animals and toys. As a text for the present purposes, I have extracted and present here those routines touching on this particular topic. Other intervening material has been edited out. My presentation here retains the original order of occurrence.

1) What has 8 wheels and rolls?
Roller skates.

2) What has 2 wheels and pedals?
A bicycle.

3) What has 4 wheels, no pedals, and a steering wheel?
A car.

4) What has 4 legs and can run?
A mustang.

5) What has 3 wheels and pedals?
A tricycle.

6) What has 4 legs and can't walk?
A chair.

7) What has 2 legs, it can walk?
A monkey.

8) What has long legs and its hard to walk?
A seagull.

9) What has 2 seats, 4 wheels, and they can roll?
A car.

10) What has lots of windows and they can fly?
Airplane.

11) What are those little clocks and its in your car?
A dragger.

We have here, then, a corpus of interrogative routines of the transparent sort, involving unambiguous questions (with one or two exceptions, to be dealt with below) whose answers are uniquely determined by the interrogator. In point of fact, items #4 and #6 above, the two exceptions, allow us to call this sample a transitional one between neophyte and more experienced riddling. The riddlers have mastered the texture and rhythm of their genre, and are making tentative stabs into appropriate content.

In order to convincingly penetrate the triviality barrier with this folkloric material, I will have recourse to the concept of folk taxonomy. The starting point in the analysis may as well be Ward Goodenough's formulation of the cognitive approach to culture:

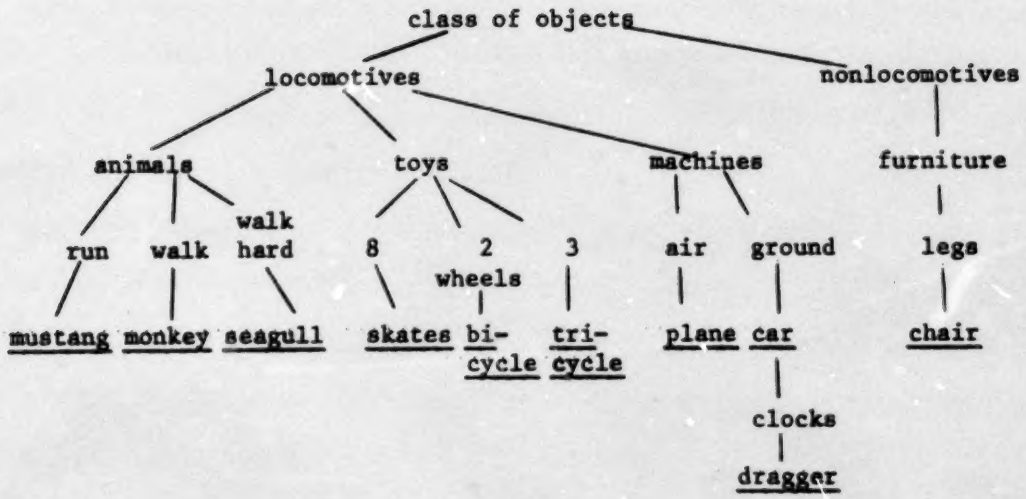
> A society's culture consists of whatever it is one has to know in order to operate in a manner acceptable to its members...It is the forms of things that people have in their mind, their models for perceiving, relating, and otherwise interpreting them (Goodenough 1957:167).

Culture, in this formulation, consists in mental structures, or to follow contemporary parlance, folk taxonomies. These folk taxonomies organize the experiential world into discrete and logically ordered semantic domains. The cognitivist argues that all human behavior derives from these models, mental structures, or folk taxonomies (Sturtevant 1964).

Returning to our corpus of children's riddles, I would contend that the riddles centering on locomotion demarcate this theme as a semantic

field, and provide substantial detail concerning the structure of its component categories. The riddles themselves provide only the tokens, or concrete objects in the taxonomy, and the distinctive features, or points of significant contrast. The entire taxonomic apparatus, consisting of segregate labels, must be provided in this instance by myself, the analyst. Given, then, by the children, is the following set of tokens: roller skates, bicycle, car, mustang, tricycle, chair, monkey, seagull, airplane, dragger. In addition, the riddles provide the following distinctive features: wheels, pedals, legs. Yet as the theme of locomotion is explored and developed, one routine begetting another, one senses that underlying this contemplative kind of performance there lurks a fairly rigorously organized taxonomic structure.

The chart given below presents one possible taxonomy of the semantic domain of locomotion capable of accounting for the riddles in our corpus. This chart is truly the product of a collective effort, first on the part of the children, whose verbal interaction created the corpus, and second, on my own part, in creating a feasible taxonomic enviornment for their empirical observations. Whether this chart or one like it resides in the children's consciousness or subconsciousness is an issue entirely beyond the scope of my judgment.


class of objects
locomotives
nonlocomotives
animals
toys
machines
furniture
run
walk
walk hard
8
2 wheels
3
air
ground
legs
mustang
monkey
seagull
skates
bi-cycle
tri-cycle
plane
car
chair
clocks
dragger

We have here a folk taxonomy focused on the semantic domain of locomotion. While the taxonomy is obviously not exhaustive, it is equally obviously highly structured and logically ordered within its chosen realm. There are several tiers to the taxonomy, connecting the tokens at the most particular level to the unique beginner at the most general. Segregate categories delimit the relationships of exclusion and inclusion obtaining in the taxonomy. Criterial attributes distinguishing the members of a single segregate category are provided immediately above the tokens.

The logical relationships inherent in the children's riddling and captured (hopefully) in this taxonomy can be isolated through a distinctive feature analysis of the segregate categories. With reference to a small number of critical variables, each segregate category exhibits either a positive or negative value. The constellation of such values should be unique in each case. Here is the entire set of contrasts:

animals	toys	machines	furniture
+legs	-legs	-legs	+legs
-wheels	+wheels	+wheels	-wheels
-pedals	+pedals	-pedals	-pedals
+mobile	+mobile	+mobile	-mobile

We can readily perceive some of the differences between folk and scientific taxonomy. The folk taxonomy is adapted to practical purposes, while the scientific taxonomy attends rigorously to all of the phenomena within its ken. The practical orientation of the folk taxonomy emerges from the following children's riddle:

> What's the difference between a loaf of bread and an elephant?
> Response: I don't know.
> Catch: I won't send you to the grocery store for bread.

The classification system contained in folk taxonomies sustains basic cultural competence even at the most mundane level. The folk taxonomy is a working taxonomy, facilitating, as Goodenough observes (see above), culturally acceptable action. Scientific taxonomy, on the other hand, seeks to make explicit the structure of semantic domains beyond the scope of any ordinary utility. Thus in this example the children need not be concerned with marginal cases such as the wheelchair, nor with the exceptional status of skates which are toys but lack pedals. In point of fact, discrepancies of this nature are particularly conducive to true riddles with metaphoric content, as we shall see below.

Nonetheless, the taxonomy presented here is not unscientific. In their grouping of tokens the children have suggested a structure transcending what Levi-Strauss calls "classification at the level of sensible properties" (1966:15). The taxonomy sketched in above rests on the union of form and function. Wheels, legs, and pedals are not casually, but causally, related to locomotion; they are the empirically available markers of specific modes of locomotion. Legs correlate with self-generated motion; pedals, with mechanical motion based on the expenditure of human energy. Wheels without pedals entail in most cases some exterior source of energy. These distinctive features go beyond mere empiricism, by linking external form or anatomy to function. The formulation of such a taxonomy, emerging as it does in the arena of verbal play, is no mean or trivial task.

In the analysis thus far, we have viewed the children in their structuring persona, dwelling rather methodically in the course of the riddling session on the order prevalent within their cognitive systems. We have seen a diverse collection of material objects, some commonplace, others exotic, systematically compared and contrasted, on the basis of a very

few criterial attributes. Children's play across the whole spectrum of verbal and non-verbal genres exhibits this ordering facet, and one might speculate that without the informal, entertaining format provided by the ludic genres, children might acquire only with great difficulty the fundamental cognitive and interactional abilities required of adults in their society. Indeed, the practice gained in the arena of children's folklore would appear to be a critical aspect of the enculturation process.

Resting our case here, however, with the ordering facet of children's play, would be a grave mistake. There is present in most children's folklore an opposite tendency, and this too contributes vitally to the enculturation process. Returning to our riddling corpus, we find two routines which are extraordinary in that they depart from transparent questioning procedures and involve, whether intentionally or not, linguistic ambiguity. These two routines, #2 and #6, tend to subvert the very same taxonomy being developed in the other riddles in our corpus. As with the proverbial sand castle, the children no sooner become adept at building a structure, than they learn to dismantle it.

The notions subversive to our taxonomy appear in the guise of metaphor, in both cases involving a single word with two rather different referents. The metaphor resurrects a prior logic, the logic which enabled in the first place the extension of a single morpheme to two referents. This logic of the metaphor, however, stands apart from the organizing logic of the taxonomy. One of these metaphors comprises the block element of the only true riddle in the corpus:

> What has 4 legs and can't walk?
> A chair.

In the context of the other routines, legs serve as a distinctive feature,

setting the category animals off from toys and machines. As we have seen, this feature has both formal and functional cogency in the folk taxonomy represented in our corpus of riddles. In this metaphor, however, the legs of a person or animal are analogized to the legs of a chair on formal grounds only, since the chair's legs are not correlated to the chair's mobility. The metaphor thus proposes another logic, one at variance with the logic of the taxonomy. Or to put the matter differently, the metaphor proposes another taxonomy, one in which legged furniture and animals would be subsumed together under a single rubric constituted on the basis of the shared feature (+legs). This metaphor is subversive precisely because it broaches the possibility of alternate slicings of the experiential world. Other, ghostly, taxonomies flicker into existence, challenging momentarily the taxonomy under elaboration.

The other metaphor resides in the word mustang, which names both a type of horse and a car model, tokens which are cognitively separated in the taxonomy into the segregates animal and machine respectively. These tokens are cognitively conjoined in this metaphor, which proposes a grouping of diverse tokens united in their fleetness, or what we might refer to as locomotive expertise. As in the previous example, this metaphor throws into relief an alternative taxonomy, knitting some of the same tokens into a quite different logical structure. The children are evidently at that watershed point in their development, in which they become aware of the dual potencies of language, to render shared cognitive structures, and to rearrange these structures into alternative forms. Each of these processes is adequately reflected in our riddling sample.

It is noteworthy that the conventional taxonomy, with its solid foundation on formal and functional equivalence, prevails over the alternate taxonomies lacking as substantial a footing. The metaphorical

connections remain pale and fleeting in the context of the more highly elaborated taxonomy of locomotion. In fact, we tend to measure the departure of each metaphor using the locomotive taxonomy as a standard. Thus, the leap of metaphor between the segregates furniture and animal is long indeed, since these two are dominated by the generic node in the taxonomy. The segregates animal and machine, on the other hand, momentarily aligned in the word mustang, are dominated by a lower node in the taxonomy. This latter metaphor consequently covers less cognitive distance. In this fashion the deviant visions of taxonomy actually reinforce the standard taxonomy, at least in the riddling corpus under consideration here. We might adduce from this fact that the children who produced these riddles are still primarily rooted in the utilitarian facet of language, the potency of language to render shared cognitive structures. Later, as their riddling and other verbal expertise develops, they will acquire the notion that language is in reality a human tool, equally capable of clarification and obfuscation.

A few pages back, I alleged that both the ordering and disordering facet of children's folklore, and riddling in particular, have great consequence in the process of enculturation. Concerning this point, Ian Hamnet observed as follows:

> Classification is a pre-requisite of the intelligible ordering of experience, but if conceptual categories are reified, they become obstacles rather than means to a proper understanding and control of both physical and social reality. The ability to construct categories and also to transcend them is central to adaptive learning (1967:385).

We have in the riddling sample herein treated an exemplification of precisely the point made by Hamnet. Cognitive skills central to the mastery of culture, "the ability to construct categories and also to

transcend them," are fostered in the enjoyable format of children's riddling.

In the way of a conclusion, I will simply tie up some of the loose ends left hanging over the preceding pages. William Bascom has noted that in some settings "riddles serve as a didactic device to sharpen the wits of young children" (1954:294). The overall thrust of this paper has been to illustrate with concrete data this observation which has become fairly conventional in folkloristics. But the present exemplia further illustrates the nature of wits and what might be involved in the sharpening of them. We are concerned here with cognitive skills associated with the classification of the tokens of experience; with the capacity to articulate shared cognitive structures, and the complimentary capacity to transcend these. In this context, riddling may indeed be viewed as a didactic mechanism, conducive to experimentation with received notions of order, and elaboration of novel cognitive orders. Riddling as an enculturating device allows children to work through the dual vectors of language, towards order and towards anti-order, in a stimulating and enjoyable social context. In riddling, at various stages, children learn to formulate culturally acceptable classifications; to articulate classifications at variance with cultural conventions; and finally to assess language and indeed classification as arbitrary instruments reflecting only partially the continuous texture of experience.

We can perhaps anticipate yet another great huamnistic wave, the discovery of the cerebral child. Levi-Strauss in particular introduced us to the cerebral savage, whose primitive speculation represents another, not an inferior, science (Levi-Strauss 1966). The time may be ripe to

turn our humanistic energies to those savages among us, and recognize at our very portals the cerebral child, concerned in his verbal routines with complex matters of rationality, sociability, and aesthetics. Certainly in the riddling corpus discussed above we find prolonged contemplation of a cognitive field, transpiring in a format conducive to artful speech and dependent on some degree of social harmony. Crossing the triviality barrier, we readily perceive the consequential nature of children's verbal play. A folkloristics of enculturation must be developed to fully investigate the place of children's folklore in the persistence and modification of culture.

Finally, returning to the Chicano children who produced this riddling corpus, we must inquire into their choice of semantic fields. The field of locomotion is a most interesting one, and the content patterning within this field even more so. In the first place, the environment in which the riddling transpires exerts considerable influence on content to be included. We were surrounded by cars and bicycles and airplanes, as one generally is in the urban setting. Through the process of scene incorporation, these tokens found their way into the riddling. It is of interest that other tokens, far removed from the interaction, also turn up, such as monkeys, seagulls, skates. The classification begins with the familiar and expands outward to encompass the exotic.

The basic antinomy established in the riddling might well be the contrast between animals and machines. At the very least, this topic could be said to be one of the central concerns evinced in the riddles. This antinomy is of course crucial in the context of modern, industrial society, in which the machines rather than our animal brethren surrounds us with animistic contrast to ourselves. This development may well be

all the more intensified among Central Texas Chicanos, who have very recent pastoral roots, but currently reside primarily in urban environments. James Fernandez remarks that in urban industrial settings children play at being machines, while in pastoral settings children play at being animals (1974). The folk taxonomy presented in this paper, straddling as it does both the pastoral and mechanical universe, may well reflect the transitional status of the Chicanos, and indeed, our entire society, between a rural past, reflected in oral tradition, and an urban present. Would it be possible to suggest that the children, in this riddling session, are working through basic contradictions in their cultural apparatus, in much the same fashion as primitives examine apparent contradictions through the logical tool of mythology, to borrow the diction of Levi-Strauss? (See Levi-Strauss 1963.)

While this suggestion may seem a bit far-fetched, I would like to leave it on the books for corrective purposes. Certainly, to aruge that the riddling considered in this paper constitutes a symposium on matters of conscious and subconscious concern to the children, does less violence to scholarly countenance than to assert that these materials are trivial and of no consequence to social science at all. As the pendulum shifts from the extreme position characteristic until recently, which dismissed much of children's folklore as inconsequential, we will come to an accurate understanding of the proper place for these materials within the science of man.

REFERENCES

Abrahams, Roger
1973. Rituals in Culture. Unpublished manuscript.

Abrahams, Roger and Alan Dundes
1972. Riddles. In Richard M. Dorson (ed.), Folklore and Folklife. University of Chicago Press.

Bascom, William
1954. Four Functions of Folklore. Journal of American Folklore 67.

Blacking, John
1961. The Social Value of Venda Riddles. African Studies 20.

Fernandez, James
1974. The Mission of Metaphor in Expressive Culture. Current Anthropology 15.

Georges, Robert and Alan Dundes
1963. Toward a Structural Definition of the Riddle. Journal of American Folklore 76.

Goodenough, Ward
1957. Cultural Anthropology and Linguistics. In Report of the 7th Annual Round Table Meeting on Linguistics and Language Study, Paul Garvin (ed.).

Hamnet, Ian
1967. Ambiguity, Classification, and Change: The Function of Riddles. Man 2 (new series).

Huizinga, Johan
1950. Homo Ludens. Beacon Press, Boston.

Levi-Strauss, Claude
1963. Structural Anthropology. Basic Books.

1966. The Savage Mind. University of Chicago Press.

McDowell, John
1974. Interrogative Routines in Mexican-American Children's Folklore. Working Papers in Sociolinguistics 20.

Piaget, Jean
1965. The Moral Judgment of the Child. Free Press.

Roberts, John, M.J. Arth, and R.R. Buch
1959. Games in Culture. American Anthropologist 61.

Roberts, John and Brian Sutton-Smith
1962. Child Training and Game Involvement. Ethnology 1.

Sanchez, Mary and Barbara Kirshenblatt-Gimblett
1971. Child Language and Children's Traditional Speech Play. Penn-Texas Working Papers in Sociolinguistics 5.

Sturtevant, William
1972. Studies in Ethnoscience. In James P. Spradley (ed.). Culture and Cognition: Rules, Maps, and Plans. Chandler Publishing Company.

Sutton-Smith, Brian
1967. The Role of Play in Cognitive Development. Young Children 6.

1972. A Developmental Structural Account of Riddles. Unpublished manuscript.

1970. Psychology of Children's Folklore: The Triviality Barrier. Western Folklore 29.